IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

SAVEITSAFE, LLC,	§	
	§	
Plaintiff,	§	
	§	CIVIL ACTION NO. 6:20-cv-00295
v.	§	
	§	
ULTRA ELECTRONICS HOLDINGS PLC,	§	**JURY TRIAL DEMANDED**
	§	
Defendant.	§	

ORIGINAL COMPLAINT

Plaintiff SaveItSafe, LLC ("Plaintiff" or "SaveItSafe"), by and through its attorneys, for its

Original Complaint against Ultra Electronics Holdings plc ("Defendant" or "Ultra"), and

demanding trial by jury, hereby alleges as follows:

I. NATURE OF THE ACTION

1.   This is an action for patent infringement arising under the patent laws of the United

States, 35 U.S.C. §§ 271, *et seq.*, to enjoin and obtain damages resulting from Defendant's

unauthorized use, sale, and offer to sell in the United States of products, methods, processes,

services and/or systems that infringe SaveItSafe's United States patent, as described herein.

2.   Ultra manufactures, provides, uses, sells, offers for sale, imports, and/or distributes

infringing products and services; and encourages others to use its products and services in an

infringing manner, including their customers, as set forth herein.

3.   SaveItSafe seeks past and future damages and prejudgment and post-judgment

interest for Ultra's past infringement of the Patent-in-Suit, as defined below.

II. PARTIES

4.   Plaintiff SaveItSafe is a limited liability company organized and existing under the laws of the State of Delaware with its principal place of business located at 1312 Sunset Court, Tool, Texas, 75143. SaveItSafe's registered agent for service of process in Texas is Corporation Service Company, 211 E. 7th Street, Suite 620, Austin, Texas 78701.

5.   SaveItSafe is the result of a corporate spin off from No Magic, Inc. ("No Magic"). No Magic was established in 1996 by the current CEO of SaveItSafe (who was also the CEO of No Magic) and his brother, the inventor of the Patent-in-Suit. No Magic primarily focused on software development. It garnered substantial success, generating over 10,000 customer companies, including those in the energy, automotive, financial, logistics, telecommunications and space exploration (NASA) industries. No Magic's commercial success led to its eventual acquisition by a world leader in engineering software, Dassault Systèmes SE ("Dassault"). However, the rights to the Patent-in-Suit were not sold to Dassault as part of its acquisition of No Magic, but were instead transferred to SaveItSafe so that SaveItSafe's CEO and the inventor of the Patent-in-Suit could maintain ownership and control.

6.   On information and belief, Defendant Ultra is a public limited company organized under the laws of the United Kingdom with a registered office at 35 Portman Square, London W1H 6LR, United Kingdom. Ultra also maintains offices in this District at 707 Jeffrey Way, Round Rock, Texas 78665 and 4101 Smith School Road, Building IV, Suite 100, Austin, Texas 78744.

III. JURISDICTION AND VENUE

7.   This is an action for patent infringement arising under the Patent Laws of the United States, in particular 35 U.S.C. §271, 281, 283, 284, and 285. This Court has jurisdiction over the subject matter of this action under 28 U.S.C. §1331 and 1338(a).

8.   Upon information and belief, Defendant transacts substantial business in the State of Texas and the Western District of Texas. Defendant, directly and through subsidiaries or intermediaries (including distributors, retailers, resellers and others), has purposefully and voluntarily placed one or more of their infringing products, as described below, into the stream of commerce with the expectation that these infringing products will be purchased and used by customers in the District. Defendant has committed acts of patent infringement within the District.

9.   Defendant has also placed downstream products containing infringing components into the stream of commerce by shipping infringing products into Texas, knowing that they would be shipped into Texas, and/or knowing that these infringing products would be incorporated into other products that would be shipped into Texas.

10.   On information and belief, Defendant interacts with distributors and customers who sell the infringing products into Texas, knowing that these customers will sell the infringing products into Texas, either directly or through intermediaries.

11.   This Court has personal jurisdiction over Defendant because it has committed acts giving rise to this action within Texas and within this District. The Court's exercise of jurisdiction over Defendant would not offend traditional notions of fair play and substantial justice because Defendant has established minimum contacts with the forum with respect to both general and specific jurisdiction.

12.   Venue is further proper as to Defendant Ultra, which is organized under the laws of the United Kingdom, in light of 28 U.S.C. § 1391(c)(3) which provides that "a defendant not resident in the United States may be sued in any judicial district, and the joinder of such a defendant shall be disregarded in determining where the action may be brought with respect to other defendants."

IV. FACTUAL ALLEGATIONS

PATENT-IN-SUIT

13.   SaveItSafe is the owner of all right, title and interest in and to U.S. Patent No. 8,929,552 (the "'552 Patent"), entitled "Electronic Information and Cryptographic Key Management System" issued on January 6, 2015. The '552 Patent discloses improved systems and methods for securing electronic information. The information that is to be secured is associated with a cryptographic key and that key is then also secured by encrypting it, saving it, restricting access to it, or by other means. A key management system may be tasked with securing the key and confirming that the key is indeed secured. The claimed invention of the '552 Patent was intended to address problems with conventional methods of securing electronic information: conventional systems and methods failed to secure all of the components of a cryptosystem and did not adequately address securement of cryptographic keys. '552 Patent, 5:1-7:3. The '552 Patent addressed these shortcomings, in one respect, by enabling a function of the system only after it has first confirmed, via a second functionality that is independent of the functionality that secured the key, that the relevant cryptographic key has been secured. *Id*. at 7:19-23. Examples of the functions that can be enabled in response to the confirmation of the securement of the key include enabling the encryption of electronic information, decryption of electronic information, transfer of electronic information, saving of electronic information, reading of electronic information, rewriting electronic information, creating electronic information, and manipulating electronic information. Additionally, the '552 Patent discloses enhanced security measures such as using secure socket layer for transferring keys or information and requiring simultaneous access requests from multiple administrators in order to allow access to secure electronic information.

14.   SaveItSafe is the assignee of the '552 Patent and has all rights to sue for infringement and collect past and future damages for the infringement thereof.

DEFENDANT'S ACTS

15.   Ultra is a global provider of secure communication and encryption products and solutions. Specifically, Ultra provides hardware, software, and services that secure electronic information via hardware security modules ("HSMs") and cryptographic operations to its customers in the United States, including in this District. For example, Ultra's Keyper HSM, Keyper Plus HSM, and CryptoSec Banking HSM, provide transaction security, key storage, and key security. "An Ultra innovation, the KeyperPlus HSM provides the ultimate level of protection for the most sensitive data and information systems. At the heart of KeyperPlus is Ultra's revolutionary ACCE technology; the flexible crypto platform providing the highest level of assurance – FIPS 140-2, Level 4." https://www.ultra-cis.com/capabilities/military-communication-systems/cryptographic-key-management. Likewise, Ultra describes the Cryptosec HSM as "specially designed for the banking and finance industry, providing the power needed to tackle multiple currencies and high transaction rates, whilst maintaining processing speed." https://www.ultra-cis.com/capabilities/military-communication-systems/cryptographic-key-management.

16.   Generally, Ultra's HSMs associate a cryptographic key with secured information. This cryptographic key is further secured by encryption or other technical means. Once the securement of the cryptographic key is confirmed, the HSMs may enable subsequent cryptographic or data processing functions based on that confirmation. For example, the relevant high-level functions of Ultra's Keyper and CryptoSec HSM are illustrated in the images below:

KEYPER^{PLUS}: THE ULTIMATE PROTECTION OF KEY MATERIAL

Ultra Electronics has designed the Keyper^{Plus} range of HSMs to provide the ultimate level of protection for the most sensitive data and information systems. At the heart of Keyper^{Plus} is Ultra's revolutionary ACCE technology.

ACCE is the next generation flexible crypto platform that provides the highest level of assurance – FIPS 140-2, Level 4. Based on this core technology, Ultra has built a product range to cater to the PKI, VPN and Internet security markets. The Keyper^{Plus} HSM is ideally suited to businesses deploying a cryptographic system where the protection of cryptographic keys is a priority, for example, in organisations requiring certificate signing, code or document signing, bulk generation or ciphering of keys or data.

The Keyper^{Plus} HSM is available in three models to suit differing requirements:

- Keyper^{Plus}
- Keyper^{Plus} 10 Key Licence
- Keyper^{Plus} Without ECC

KEYPER^{PLUS} FEATURES AND BENEFITS

- Architecture - Built using ACCE giving tamper protection to FIPS 140-2 Level 4
- Design - Integrated smart card reader, PIN entry and cryptographic processing
- Fault Tolerance - Supports resilient configurations
- Availability - Optional Redundant Power Module
- Scalability - Load balancing of multiple HSMs across multiple hosts
- Choice of Interfaces - PKCS#11, Microsoft CAPI/CNG, Java JCE/JCA
- Connectivity - Ethernet connectivity offering greater scalability and flexibility
- Manageability - Local or remote management using Keyper Management Centre
- Field Upgradable – Upgrade firmware and algorithms in the field
- Authenticated Use of Keys - Optionally PIN activated
- Operating Systems - Linux, FreeBSD, Solaris and Windows

Cryptographic Functions and Services (firmware v3.0)	• ECDSA curves: - P192 – P521 - brainpoolP224r1 - P512r1 - brainpoolP224t1- P512t1 - secp256k1 • ECDH curves: - P192 – P521 - brainpoolP224r1 - P512r1 - brainpoolP224t1- P512t1 • RSA: 1024 - 4096 bit key length • DSA: 1024 bit key modulus • AES: 128 - 256 bit key length • 3DES: 168 bit key length • SEED: 128 bit key length • Hash: SHA-2, RIPEMD-160

Keyper Plus HSM Datasheet, available at: https://www.ultra-cis.com/uploads/keyper%20hsm%20v2_1.pdf.

CSP Name	Description and /or Purpose	Type of Key or CSP	Storage Location (Footnote - How Zeroized)
IMK (Image Master Key)	Protection of the SVK, SKEK & AAK	128 bit AES	SKS[6]
ISMK (Internal Storage Master Key)	Protection of Application Keys stored internally in Flash	256 bit AES	SKS[6]
AAK (Authentication String)	Authentication of Roles	112 bit secret random value.	Black Store encrypted by IMK[7]
Application Keys	Encryption/Decryption, or Signatures	Triple-DES, AES, DSA, RSA, ECDSA	Black Store encrypted by ISMK[7]

6.1.   Roles

The ACCE v3 supports the following Roles:

Role	Authentication Type	Authentication Data
Unauthenticated User	None	None
Remote User	Identity-based (Unique ID Number)	Knowledge of a Triple-DES key – the module generates "m" random numbers (one per card) and requires the result of a Triple-DES MAC of that number using that key for each card.
Security Officer	Identity-based (Unique ID Number)	Knowledge of a set of individual Triple-DES keys – the module generates "m" random numbers (one per card) and requires the result of a Triple-DES MAC of that number using that key for each card.
Operator	Identity-based (Unique ID Number)	Knowledge of a set of individual Triple-DES keys – the module generates "m" random numbers (one per card) and requires the result of a Triple-DES MAC of that number using that key for each card.
Crypto Officer	Identity-based (Unique ID Number)	Knowledge of a set of individual Triple-DES keys – the module generates "m" random numbers (one per card) and requires the result of a Triple-DES MAC of that number using that key for each card.

Table 9 - ACCE v3 Roles

FIPS 140-2 Non-Proprietary Security Policy, Advanced Configurable Cryptographic Environment, available at: https://csrc.nist.gov/CSRC/media/projects/cryptographic-module-validation-program/documents/security-policies/140sp2793.pdf.

OVERVIEW

Cryptosec Banking is a high-performance network-attached financial cryptographic server equipped with full functionality to ensure transaction security and key storage. The server integrates all the standard commands and functions of the banking and security sectors, including EMV.

The Cryptosec Banking solution is a reliable HSM and is used extensively by numerous banks across the world. It complies with the latest EMV standards applicable to smart cards, contactless cards and mobile transactions, and is compatible with the main Payment Card software applications e.g. Card Verification, ATM Interchange, Cash Card Reloading, Data Integrity, Chip Card Transaction Processing, etc.

Cryptosec Banking is the only HSM designed for the financial sector offering full functionality based on standards without any future costs for the addition of new cryptographic functions or commands. Thanks to the continuous updates, our customers are not required to replace their servers every few years due to standard or functionality obsolescence.

All these features when combined with the superior performance (up to 15000 t.p.s.) and excellent cost-benefit ratio to maximize ROI, make Cryptosec Banking the smartest choice HSM for the banking sector.

SPECIFICATIONS
Key Management

- RSA Remote Key Transport
- DUKPT for PIN and Data Encryption
- Master/Session Key Scheme

Cryptographic Algorithms
- Symmetric:
  - DES & Triple-DES (Key lengths 112 or 168 bit)
- Asymmetric
  - RSA (up to 2048 bit)
- Hashing & MAC
  - SHA-1
  - SHA-2 (224, 256, 384, 512)
  - MD5
  - 3DES X9, 3DES X9.19 (Retail-MAC)
  - HMAC-SHA-1, HMAC-SHA-2

Cryptosec Banking HSM Datasheet, available at: https://www.ultra-cis.com/uploads/realsec%20cryptosec%20banking%20v1_6%20(1).pdf

17.   Ultra instructs its customers regarding the implementation and operation of the accused instrumentalities, including at https://www.ultra-cis.com/capabilities/military-communication-systems/cryptographic-key-management and through documentation provided to and made available by the National Institute of Standards and Technology's Computer Security Resource Center at https://csrc.nist.gov/.

18.   On information of belief, Defendant Ultra also implements contractual protections in the form of license and use restrictions with its customers to preclude the unauthorized reproduction, distribution and modification of its software.

19.   Moreover, on information and belief, Defendant Ultra implements technical precautions to attempt to thwart customers who would circumvent the intended operation of Ultra's products.

20.   Ultra had knowledge of the '552 Patent and its infringing conduct as early as the date when SaveItSafe effected service of its Original Complaint.

V. COUNTS OF PATENT INFRINGEMENT

COUNT ONE
INFRINGEMENT OF U.S. PATENT NO. 8,929,552

21.   SaveItSafe incorporates by reference its allegations in the preceding paragraphs as if fully restated in this paragraph.

22.   SaveItSafe is the assignee and owner of all right, title and interest to the '552 Patent. SaveItSafe has the legal right to enforce the patent, sue for infringement, and seek equitable relief and damages.

23.   On information and belief, Defendant Ultra, without authorization or license from SaveItSafe, has been and is presently directly infringing at least claim 4 of the '552 Patent, as infringement is defined by 35 U.S.C. § 271(a), including through making, using (including for testing purposes), selling and offering for sale methods and articles infringing one or more claims of the '552 Patent. Defendant Ultra is thus liable for direct infringement of the '552 Patent pursuant to 35 U.S.C. § 271(a).

24.   Exemplary infringing products include Ultra's Keyper HSM, Keyper Plus, HSM, and Cryptosec Banking HSM which support securing electronic information and a cryptographic key by using one function to secure the key, a second function to confirm the securing, enabling a function in response to that confirmation, and restricting access to electronic information to situations where the system receives substantially simultaneous access requests.

25.   On information and belief, Defendant Ultra, without authorization or license from SaveItSafe, has been and is presently indirectly infringing at least claim 4 of the '552 Patent, including actively inducing infringement of the '552 Patent under 35 U.S.C. § 271(b). Such inducements include without limitation, with specific intent to encourage the infringement, knowingly inducing consumers to use infringing articles and methods that Ultra knows or should know infringe one or more claims of the '552 Patent. Ultra instructs its customers to make and use the patented inventions of the '552 Patent by operating Ultra's products in accordance with Ultra's specifications. Ultra specifically intends its customers to infringe by implementing its hardware security modules to secure electronic information and a cryptographic key by using one function to secure the key, a second function to confirm the securing, enabling a function in response to that confirmation, and restricting access to electronic information to situations where the system receives substantially simultaneous access requests, as set forth above.

26.   On information and belief, Defendant Ultra, without authorization or license from SaveItSafe, has been and is presently indirectly infringing at least claim 4 of the '552 Patent, including contributory infringement of the '552 Patent under 35 U.S.C. § 271(c) and/or § 271(f), either literally and/or under the doctrine of equivalents, by selling, offering for sale, and/or importing into the United States, the infringing products. Ultra knows that the infringing products (i) constitute a material part of the inventions claimed in the '552 Patent; (ii) are especially made or adapted to infringe the '552 Patent; (iii) are not staple articles or commodities of commerce suitable for non-infringing use; and (iv) are components used for or in its hardware security modules to secure electronic information and a cryptographic key with a first and second function and restrict access to electronic information in an infringing manner.

27.   As a result of Ultra's infringement of the '552 Patent, SaveItSafe has suffered monetary damages, and is entitled to an award of damages adequate to compensate it for such infringement under 35 U.S.C. § 284, but in no event, less than a reasonable royalty.

VI.   JURY DEMAND

28.   Plaintiff SaveItSafe demands a trial by jury of all matters to which it is entitled to trial by jury, pursuant to FED. R. CIV. P. 38.

VII.   PRAYER FOR RELIEF

WHEREFORE, SaveItSafe prays for judgment and seeks relief against Defendant as follows:

A.   That the Court determine that one or more claims of the Patent-in-Suit is infringed by Defendant Ultra, either literally or under the doctrine of equivalents;

B.   That the Court award damages adequate to compensate SaveItSafe for the patent infringement that has occurred, together with prejudgment and post-judgment interest and costs, and an ongoing royalty for continued infringement;

C.   That the Court award enhanced damages pursuant to 35 U.S.C. §284; and

D.   That the Court award such other relief to SaveItSafe as the Court deems just and proper.

DATED: April 16, 2020

Respectfully submitted,

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